



OTTERPOOL PARK

COUNTRYSIDE • CONNECTED • CREATIVE

ENVIRONMENTAL STATEMENT ADDENDUM
OP5 CHAPTER 6 – **AIR QUALITY**

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September 2026



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Otterpool Park

Environmental Statement Addendum

Chapter 6: Air Quality

September 2026

Otterpool Park Environmental Statement Addendum

Chapter 6: Air Quality

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Acronyms and Abbreviations

Acronym / Abbreviation	Definition
ABC	Ashford Borough Council
AD	Anaerobic Digestion
APIS	Air Pollution Information System
AQAL	Air Quality Assessment Level
ARN	Affected Road Network
CoCP	Code of Construction Practice
Defra	Department for Environment, Food and Rural Affairs
DDC	Dover District Council
DMP	Dust Management Plan
DMRB	Design Manual for Roads and Bridges
DWTS	Domestic Waste Transfer Station
EA	Environment Agency
EFT	Emission Factor Toolkit
EHO	Environmental Health Officer
EHP	Early Homes Parcel
ES	Environmental Statement
FHDC	Folkestone and Hythe District Council
FUT	Future on-site receptor identification prefix
HDV	Heavy Duty Vehicle
HRA	Habitats Regulations Assessment
IAQM	Institute of Air Quality Management
KCC	Kent County Council
LNR	Local Nature Reserve
MAGIC	Multi-Agency Geographic Information for the Countryside
MRF	Materials Recovery Facility
N-dep	Nitrogen deposition
NH ₃	Ammonia
NO ₂	Nitrogen dioxide
NO _x	Oxides of nitrogen
NPPF	National Planning Policy Framework

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Acronym / Abbreviation	Definition
NRMM	Non-Road Mobile Machinery
OS	Ordnance Survey
OTT	Existing human health receptor identification prefix
ou _E /m ³	European odour units per cubic metre
PM _{2.5}	Particulate matter with an aerodynamic diameter of 2.5 micrometres or less
PM ₁₀	Particulate matter with an aerodynamic diameter of 10 micrometres or less
SAC	Special Area of Conservation
SSSI	Site of Special Scientific Interest
µg/m ³	Micrograms per cubic metre
UNECE	United Nations Economic Commission for Europe
WwTW	Wastewater Treatment Works

6 Air Quality

6.1 Introduction

- 6.1.1 This chapter of the Environmental Statement (ES) Addendum assesses the impact of construction and operation of the Proposed Development with respect to air quality as a result of the changes since the ES (2022) (hereafter referred to as the '2022 ES') was prepared.
- 6.1.2 This chapter should be read in conjunction with Chapters 1-4 (the introductory chapters) and Chapter 7: Ecology and Biodiversity, Chapter 14: Socio-economics, Chapter 11: Human Health, Chapter 16: Transport and Chapter 17: Waste and Resource Management.
- 6.1.3 It has also been prepared alongside and informed by ES Addendum Appendices:
- Appendix 6.1: Figures;
 - Appendix 6.2: Model Verification;
 - Appendix 6.3: Institute of Air Quality Management (IAQM) Construction Phase Method;
 - Appendix 6.4: Dispersion Modelling Parameters;
 - Appendix 6.5: Operational Phase Local Air Quality Receptor Results;
 - Appendix 6.6: Operational Phase Local Ecological Results; and
 - Appendix 6.10: Arcadis Monitoring.
- 6.1.4 Please see Table 2-1 of ES Addendum Chapter 2 for a full list of all appendices including those from the 2022 ES which remain relevant.

Updates to Relevant Aspects of the Proposed Development

- 6.1.5 This ES Addendum presents an update and re-assessment of impacts as a result of changes to the Proposed Development and construction programme since the 2022 ES, as described in Chapter 4: The Site and The Proposed Development, including:
- Updates to parameter plans to add flexibility and address potential barriers to delivery, including:
 - Updates to the Movement and Access Parameter Plan;
 - Updates to the Open Space and Vegetation Parameter Plan; and
 - Updates to the Building Heights Parameter Plan.
 - Changes to wider strategies to reflect an updated approach, e.g. transport and advanced planting.
 - Updates to the ES to reflect the passage of time, including updates to policy, guidance, methodology and the construction programme.
 - Addition of an Early Homes Parcel (EHP) (of up to 300 homes) which are proposed as the first parcel of development, in the northeast area of the red line boundary, known as the Hillhurst Green Residential Area (North). This Addendum will outline mitigation specific to the EHP where required.
 - A proposed 250m consultation zone around the operational Materials Recovery Facility (MRF) at Otterpool Quarry, within which development may take place.
 - Updates to other documents for approval such as the Development Specification and Strategic Design Principles, to reflect the need for flexibility, and up to

date, appropriate and timely delivery of the Proposed Development, in their role in a tiered planning permission.

- 6.1.6 As in the 2022 ES, specific aspects of the Proposed Development that relate to air quality include air quality impacts from construction works, changes to road traffic, and the potential for adverse air quality impacts upon existing and new receptors from within and surrounding the Site.

6.2 Updates to Assessment Methodology

- 6.2.1 The changes relevant to the air quality assessment principally comprise:

- Updates to the technical guidance, datasets and calculation tools;
- Updates to the traffic information and development phasing;
- Updates to the empirical critical loads for nutrient nitrogen relevant for the ecological receptors;
- Updates to the traffic base year from 2018 to 2024;
- Updates to the construction and occupation programme and therefore updated assessment years and scenarios (interim development and construction phase in 2035 and full occupation of the Proposed Development in 2055); and
- Additional short-term air quality monitoring surveys undertaken in 2022/23 and 2026.

- 6.2.2 These changes have informed the updated assessment presented in this chapter and are detailed below.

Updates to Legislation, Policy and Guidance

Updates to Legislation

- 6.2.3 In relation to updates to legislation from the 2022 ES, the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 (Ref 6.1) have been enacted. The Regulations set the following targets for particulate matter less than 2.5 µm in diameter (PM_{2.5}):

- Annual Mean Concentration Target ('concentration target') – a target of 10 micrograms per cubic metre (µg/m³) or lower by 2040.
- Population Exposure Reduction Target ('exposure reduction target') – a 35% reduction in population exposure by 2040 (compared to a base year of 2018).

- 6.2.4 The Environmental Improvement Plan 2025 (Ref 6.2) also establishes interim targets to achieve annual mean PM_{2.5} concentrations of 10 µg/m³ or lower and a 30% reduction in population exposure relative to 2018 levels by 2030.

- 6.2.5 The implications for the Proposed Development are that the air quality assessment must consider not only whether PM_{2.5} concentrations would exceed the relevant air quality assessment level, but also whether PM_{2.5} emissions and exposure have been minimised as far as reasonably practicable. The updated assessment therefore considers the Proposed Development's contribution to PM_{2.5} concentrations at sensitive receptors and the measures incorporated into its design and mitigation to minimise emissions and exposure. The targets do not establish a separate project-level compliance test; achievement is assessed nationally. However, the Proposed Development should demonstrate that it would not prejudice progress towards the interim and statutory targets.

Updates to National and Local Policy

- 6.2.6 The National Planning Policy Framework (NPPF) (Ref 6.3) has been updated in relation to air quality as follows:

'P3 2 c: Development proposals should sustain and contribute to compliance with relevant limit values or national objectives and targets for air pollutants including PM_{2.5}. Development proposals should take account of Air Quality Management Areas and be consistent with the objectives of relevant Air Quality Action Plans, Clean Air Plans and Local Air Quality Strategies.'

- 6.2.7 The updated NPPF does not materially alter the policy considerations or assessment requirements applicable to the Proposed Development compared with those considered in the 2022 ES. The update therefore has no effect on the assessment methodology, mitigation requirements or conclusions previously reported, although the updated policy wording has been taken into account in this ES Addendum.
- 6.2.8 Local policy relevant to air quality has not significantly changed since the 2022 ES.

Updates to Guidance

Construction Dust Risk Assessment

- 6.2.9 Since the publication of the 2022 ES, the IAQM guidance on the assessment of dust from demolition and construction has been updated, in January 2024 (Ref 6.4). The assessment methodology remains substantially unchanged; however, the guidance includes revisions to screening distances (see ES Addendum Appendix 6.3 for more details). The construction dust assessment has therefore been reviewed against the updated guidance and remains compliant with current best practice.

Operational Traffic Emissions Assessment

- 6.2.10 The Department for Environment Food and Rural Affairs (Defra) issued interim planning guidance (Ref 6.5) on the consideration of PM_{2.5} Targets within the Environmental Targets (Fine Particulate Matter) England Regulations 2023.
- 6.2.11 The guidance moves away from a requirement to assess solely whether a scheme is likely to lead to an exceedance of a legal limit and instead requires that appropriate mitigation measures are implemented from the design stage and ensuring the minimum amount of pollution is emitted and that exposure is minimised.
- 6.2.12 In addition, there have been updates to the air quality modelling tools used in the 2022 ES including the following;
- Updated Defra Emission Factor Toolkit (EFT) version 14.1 (issued May 2026) (Ref 6.6);
 - Background Pollutant Maps 2021 to 2040 (issued November 2024) (Ref 6.7);
 - NO₂ Adjustment for NO_x sector Removal Tool v9.0 (issued November 2024) (Ref 6.8);
 - NO_x to NO₂ Calculator v9.1 (issued August 2024) (Ref 6.9); and
 - Updated Ammonia (NH₃) Emission Factors and guidance (Ref 6.10).

Updates to Consultation

- 6.2.13 Engagement has been undertaken with Kent County Council (KCC) and Folkestone and Hythe District Council (FHDC) in relation to the updated planning application pack, including the inclusion and content of the ES Addendum, as described in ES Addendum Chapter 2: EIA Approach and Methodology, and the various interdependent discipline chapters.
- 6.2.14 There has been further engagement and consultation with FHDC regarding the scope and approach to the updated air quality assessment. Consultation with Natural England was also requested regarding the scope of the assessment of potential air quality effects on the Folkestone to Etchinghill Special Area of Conservation (SAC) and the associated update to the Habitats Regulations Assessment (HRA).
- 6.2.15 Table 6-1 provides a summary of consultation undertaken for this Addendum chapter. The table summarises how comments have been addressed in this chapter, where relevant.

Table 6-1 Summary of Consultation

Consultee/Date	Summary	Outcome
FHDC Environmental Health Officer (EHO) (27.08.2026)	Email correspondence sent providing a summary of the approach and conclusions of the air quality assessment for agreement.	FHDC was satisfied with the proposed assessment approach.
KCC and FHDC (14.09.2026)	Arcadis discussed the implications of odour and considerations at the permitting stage for the AD facility. Arcadis also set out how any proposed development in the consultation zone will be carefully considered at the Tier 2 and Tier 3 stages.	KCC and FHDC were satisfied with the proposed process to assess the consultation zone, with design and potential impacts considered at the Tier 2 and Tier 3 assessment stages. At these stages mitigation will be considered to ensure an air quality and odour environment that meets the guidelines and standards at the time which provide appropriate living conditions for residents. The Proposed Development commits to ensuring that there would not be any unacceptable odour impacts to residents in line with odour limits in current best practice guidance. KCC and FHDC were also reassured that no residential development is proposed to the south of the A20 Ashford Road which is secured as a country park in the Parameter Plans (ES Addendum Appendix 4.2).
Natural England (18.09.2026)	Email correspondence sent following completion of the HRA, requesting pre-application consultation and providing a copy of the updated HRA.	A response was awaited at the time of writing.

Updates to The Study Area

Construction Dust Risk Assessment

- 6.2.16 The updated IAQM guidance (Ref 6.4) revises the screening criteria used to define the construction dust study area. In particular, the human receptor screening distance from the Site has been reduced from 350 m to 250 m, while the extent of construction traffic route screening has been reduced from 500 m to 250 m from the site entrance for both human and ecological receptors. The ecological screening distance from the Site remains unchanged at 50 m. More details can be found in ES Addendum Appendix 6.3.

Operational Traffic Emissions Assessment

- 6.2.17 The study area has been based on the same criteria as the 2022 ES based on the IAQM Development Control Guidance (2017) (Ref 6.11) in relation to Human Health receptors (residential, schools etc) and the Design Manual for Roads and Bridges (DMRB) LA105 Air Quality standard (Ref 6.12) for the assessment of ecological sites.
- 6.2.18 To determine the updated study area based on the Proposed Development traffic data was obtained from WSP traffic engineers for the following scenarios;
- Base Year 2024 (for model verification and characterising current baseline air quality);
 - Interim Do Nothing 2035 (without the Proposed Development and other committed development, for ecological receptors only);
 - Interim Do Minimum 2035 (without the Proposed Development, cumulative);
 - Interim Do Something 2035 (partially completed Proposed Development and construction-phase traffic, represents peak construction, cumulative);
 - Do Minimum 2055 (without the Proposed Development, cumulative);
 - Do Something 2055 (with the Proposed Development, cumulative).

Updates to Methodology

Construction Dust Risk Assessment

- 6.2.19 The assessment methodology for the construction dust risk assessment remains substantially unchanged since the 2022 ES, however, for the purposes of this ES Addendum, it has been assumed that all construction activities could take place anywhere within the Site, rather than distinguishing between specific construction activities and their associated locations as presented in the 2022 ES.

Operational Traffic Emissions Assessment

- 6.2.20 The main guidance documents used in the 2022 ES remain current, specifically IAQM (Ref 6.11) and DMRB (Ref 6.12). The methodology is therefore as presented in the 2022 ES. The changes relate to the changes in traffic data as a result of the changes in the Proposed Development between the 2022 ES and the ES Addendum, in addition the modelling tools have also been updated as described in paragraph 6.2.12.
- 6.2.21 A summary of the assessed future years is provided in Table 6-2. The subsequent paragraphs discuss the rationale for the two assessment years in greater detail.

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Table 6-2 Summary of operational phase assessment years and rationale

Assessment Name	Assessment Future Year	Emissions Data Year	Rationale
Partially completed Proposed Development and construction-phase traffic, represents peak construction year	2035	2035	2035 is anticipated to be the busiest year in terms of construction traffic flows.
Completed Proposed Development	2055	2040	The Proposed Development is expected to be fully occupied in 2055. Current air quality tools have a horizon year of 2040, therefore, assessment beyond 2040 is not possible. The assessment of 2055 development vehicle flows using 2040 air quality tools is likely to be worst case.

- 6.2.22 The first future year which was assessed was 2035. This was considered as 2035 is anticipated to be the peak construction year with the highest construction traffic flows, as part of the Proposed Development would be completed and occupied, and construction would be ongoing and at its peak. The reasoning for the selection of 2035 as peak construction year based on the updated construction programme, estimated housing construction numbers, construction of non-residential uses, likely delivery of secondary and additional primary schools, other community facilities, and supporting infrastructure, represented the period with the greatest construction activity. The 'with Proposed Development' scenario included the additional traffic flows from construction vehicles and partial operation of the Proposed Development.
- 6.2.23 The final future year which was assessed was 2055 which represents the anticipated date the Proposed Development would be fully occupied. The 2055 transport modelling which informed the air quality assessment inherently included cumulative schemes.
- 6.2.24 The modelling of ammonia (NH₃) was undertaken in this assessment to estimate its contribution to total nitrogen deposition (N-dep) impacting ecological receptors, in particular the Folkestone to Etchinghill Special Area of Conservation (SAC). This site contains calcareous grassland features that are sensitive to changes in nitrogen deposition. This is an addition to the 2022 ES.
- 6.2.25 The Folkestone to Etchinghill SAC was also modelled as a grid and not as a transect which is an update to the 2022 ES. This was to spatially assess changes in critical levels and loads across the designated site, rather than at individual receptor points. The modelling incorporated the complex local setting of the A20, including topography, the elevated road section, and the Round Hill Tunnel portals. The grid plots were then overlaid with habitat information and satellite imagery to identify whether exceedances of the 1% screening threshold occurred on sensitive calcareous grassland or on less sensitive woodland, scrub, neutral grassland, roads, and tunnel-portals land.
- 6.2.26 Previously the modelled results were uplifted in line with the advice in DMRB LA105 due to uncertainty in future vehicle emissions. The application of the uplift is not currently undertaken as confirmed with National Highways (DMRB LA105 currently being updated), given measured roadside concentrations are reducing much faster than assumed using the Gap factor approach as a result of the performance of Euro 6/VI vehicles and electric vehicles entering the fleet.

- 6.2.27 In relation to damage cost analysis, this will be carried out at Tier 3 as and when there is more certainty in terms of the design as the different areas are built out. This will have the additional advantage of being based on near future emission rates and economic projections that will be subject to less uncertainty.
- 6.2.28 No compliance risk assessment has been undertaken in this Addendum. The risk of exceedances of the annual mean NO₂ Limit Value has significantly reduced since the 2022 ES which confirmed there was no compliance risk. Modelled NO₂ concentrations in this Addendum are lower than previously reported due to assumed phasing and updated emission factors.
- 6.2.29 Please refer to the 2022 ES Chapter 6: Air Quality for the air quality objectives which are referenced here as Air Quality Assessment Levels (AQAL).

Updates to Limitations and Assumptions

- 6.2.30 Emission factors and background concentrations have been used to carry out the 2055 operational phase assessment with the EFT v14.1 which has the latest projection year of 2050. The background maps however are only projected to 2040. Therefore, for the purpose of the 2055 assessment, 2040 backgrounds and emissions have been used. The assessment is therefore considered to be worst case as vehicle emissions and background concentrations are likely to decrease between 2040 and 2055 due to government policy and the integration of greater numbers of cleaner vehicles (in terms of lower emissions) into the traffic fleet as a result of the ongoing decarbonisation of the transport sector.

6.3 Updates to Baseline

Updates to Existing Baseline

- 6.3.1 The existing baseline comprises the existing air quality conditions in the area that are likely to be affected by the Proposed Development. A review of the baseline has been undertaken to establish an understanding of existing air quality, to identify areas that are likely to be sensitive to changes in emissions as a result of the Proposed Development and to inform air quality dispersion modelling verification. The traffic base year was defined as 2024, as detailed in ES Addendum Chapter 16: Transport, therefore air quality monitoring data representative of 2024 was acquired in order to allow the comparison of historic air quality and traffic data which serves to inform the model verification process. Baseline information on air quality has been collected from the following sources:
- Online map and aerial photograph resources (including Google Maps (Ref 6.13), Multi-Agency Geographic Information for the Countryside (MAGIC) Map (Ref 6.14), and digital Ordnance Survey mapping);
 - Defra UK Air website (Ref 6.15);
 - Ashford Borough Council (ABC) 2025 Air Quality Annual Status Report (Ref 6.16);
 - Dover District Council (DDC) 2025 Air Quality Annual Status Report (Ref 6.17);
 - Folkestone and Hythe District Council (FHDC) 2025 Annual Status Report (Ref 6.18); and
 - Air Pollution Information System (APIS) (Ref 6.19).
- 6.3.2 Baseline air quality has improved since the 2022 ES. Monitoring data collected by Folkestone and Hythe District Council (FHDC), Dover District Council (DDC) and Ashford Borough Council (ABC) are presented in Table 6-3 and Table 6-4.

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Table 6-3: Annual mean NO2 monitoring between 2020 and 2024 (µg/m³)

Site ID	X Coordinate	Y Coordinate	Council	2020	2021	2022	2023	2024
AS50	601707	142748	Ashford Borough Council	19.8	21.4	21.3	18.6	17.1
AS51	601247	142850	Ashford Borough Council	31.0	37.7	36.8	30.1	28.3
AS52	601211	142990	Ashford Borough Council	22.8	26.3	27.5	25.5	21.2
AS53	601055	142972	Ashford Borough Council	23.7	24.3	25.2	21.4	20.5
AS54	601068	143048	Ashford Borough Council	21.0	21.6	22.4	17.0	15.5
AS55	600367	143225	Ashford Borough Council	16.4	17.0	18.2	15.4	14.4
AS56	600667	143016	Ashford Borough Council	17.0	18.7	19.2	16.9	16.2
AS57	600883	142694	Ashford Borough Council	21.5	24.3	23.8	20.1	19.1
AS58	600865	142588	Ashford Borough Council	22.1	23.8	19.8	17.6	16.6
AS59	601096	142114	Ashford Borough Council	25.3	33.3	14.0	32.0	31.6
AS60	600992	142182	Ashford Borough Council	23.7	26.0	32.9	23.5	20.0
AS61	601150	142342	Ashford Borough Council	22.7	24.1	24.8	21.0	20.4

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Site ID	X Coordinate	Y Coordinate	Council	2020	2021	2022	2023	2024
AS68	601235	142772	Ashford Borough Council	-	-	-	18.6	18.5
AS44	603800	141792	Ashford Borough Council	14.3	15.0	14.0	11.8	12.5
AS49	604005	141612	Ashford Borough Council	26.9	26.7	23.5	21.3	20.8
AS69	601269	142923	Ashford Borough Council	-	-	-	27.7	28.0
AS70	601235	142897	Ashford Borough Council	-	-	-	15.8	16.0
AS71	601274	142977	Ashford Borough Council	-	-	-	17.8	17.2
AS15, AS16, AS17	603390	142075	Ashford Borough Council	22.2	20.7	21.4	19.2	19.5
AS33	599826	143084	Ashford Borough Council	16.0	15.5	16.6	15.0	13.8
AS31	601840	141457	Ashford Borough Council	16.1	16.8	17.5	16.1	14.2
AS64	600597	141385	Ashford Borough Council	17.2	19.1	19.1	16.2	15.3
AS37	600488	141277	Ashford Borough Council	19.2	20.7	22.0	18.5	17.5
AS65	600188	143619	Ashford Borough Council	-	24.2	27.7	22.1	22.7
AS63	599263	142471	Ashford Borough Council	22.5	23.6	25.1	21.1	19.6

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Site ID	X Coordinate	Y Coordinate	Council	2020	2021	2022	2023	2024
DV-01	631369	141961	Dover District Council	25.5	26.2	26.1	24.6	22.7
DV-04	630944	143159	Dover District Council	12.7	13.7	13.8	11.6	11.6
DV-05	631986	141321	Dover District Council	20.3	22.1	23.6	23.3	22.0
DV-06, DV-07, DV-08	631601	141722	Dover District Council	33.7	35.2	35.5	32.8	31.5
DV-10	632298	141469	Dover District Council	26.4	28.3	30.6	25.8	25.4
DV-11, DV-16, DV-17	632317	141429	Dover District Council	23.1	22.1	24.7	21.0	21.4
DV-12, DV-18, DV-19	631576	140474	Dover District Council	26.5	27.2	26.5	25.1	23.7
DV-23	631729	140965	Dover District Council	25.3	27.7	28.2	25.7	24.8
DV-24	631825	141112	Dover District Council	26.1	27.6	27.4	27.2	25.6
DV-25	631858	141167	Dover District Council	28.9	30.2	30.8	28.7	27.5
DV-28	630717	140020	Dover District Council	-	14.1	16.3	12.8	12.6
DV-30	631581	141744	Dover District Council	35.7	33.9	36.5	31.2	29.5
DV-31	631598	141763	Dover District Council	23.5	26.5	29.6	26.6	25.6

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Site ID	X Coordinate	Y Coordinate	Council	2020	2021	2022	2023	2024
DV-32	632657	141499	Dover District Council	26.7	28.5	29.8	27.4	27.1
DV-33	632835	141572	Dover District Council	28.4	29.5	32.9	30.4	29.3
DV-36	635698	152325	Dover District Council	14.9	16.4	16.0	14.3	14.2
DV-37	636161	151957	Dover District Council	-	29.5	22.9	20.8	20.4
DV-38	636259	151914	Dover District Council	-	34.0	37.4	30.1	29.4
DV-39	631418	142455	Dover District Council	-	19.9	18.9	18.7	17.4
DV-40	637538	152556	Dover District Council	-	-	-	17.4	18.3
DV-41	637507	152590	Dover District Council	-	-	-	18.4	18.4
DT1	622400	136100	Folkestone and Hythe District Council	18.3	21.6	20.0	18.9	17.0
DT2	622584	135820	Folkestone and Hythe District Council	15.6	16.7	16.7	15.4	13.0
DT3	609964	135279	Folkestone and Hythe District Council	14.2	13.2	15.0	13.2	12.4
DT4	612900	138200	Folkestone and Hythe District Council	22.6	26.2	25.1	22.8	18.8

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Site ID	X Coordinate	Y Coordinate	Council	2020	2021	2022	2023	2024
DT5	622734	136769	Folkestone and Hythe District Council	19.6	20.9	21.0	19.8	15.3
DT6	614552	134012	Folkestone and Hythe District Council	9.7	9.9	10.8	9.4	7.4
DT7	622396	136976	Folkestone and Hythe District Council	13.9	16.0	15.9	14.6	12.4
DT8	612964	136190	Folkestone and Hythe District Council	13.7	12.6	13.0	11.1	9.4
DT9	621248	137352	Folkestone and Hythe District Council	19.7	23.2	22.2	21.8	17.2
DT10	604116	124888	Folkestone and Hythe District Council	13.1	14.0	14.4	11.8	11.8
DT11	621436	139593	Folkestone and Hythe District Council	14.5	16.8	16.0	15.3	14.5
DT12	618860	135899	Folkestone and Hythe District Council	14.1	14.7	14.8	14.2	12.4
DT13	612481	137978	Folkestone and Hythe District Council	10.9	10.8	11.0	9.3	8.0
DT14	618727	134797	Folkestone and Hythe District Council	12.9	13.2	14.0	15.1	12.6

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Site ID	X Coordinate	Y Coordinate	Council	2020	2021	2022	2023	2024
DT15	621361	135511	Folkestone and Hythe District Council	20.1	20.2	20.3	19.5	17.4
DT16	618680	134977	Folkestone and Hythe District Council	14.4	18.0	15.8	14.7	12.1
DT17	608206	124832	Folkestone and Hythe District Council	9.9	9.6	9.8	8.9	9.0
DT18	607675	124699	Folkestone and Hythe District Council	14.0	15.3	12.6	14.1	11.5

6.3.3 Overall, the pattern in measured NO₂ concentrations between 2020 and 2024 is a downward trend, as presented in Image 6-1.

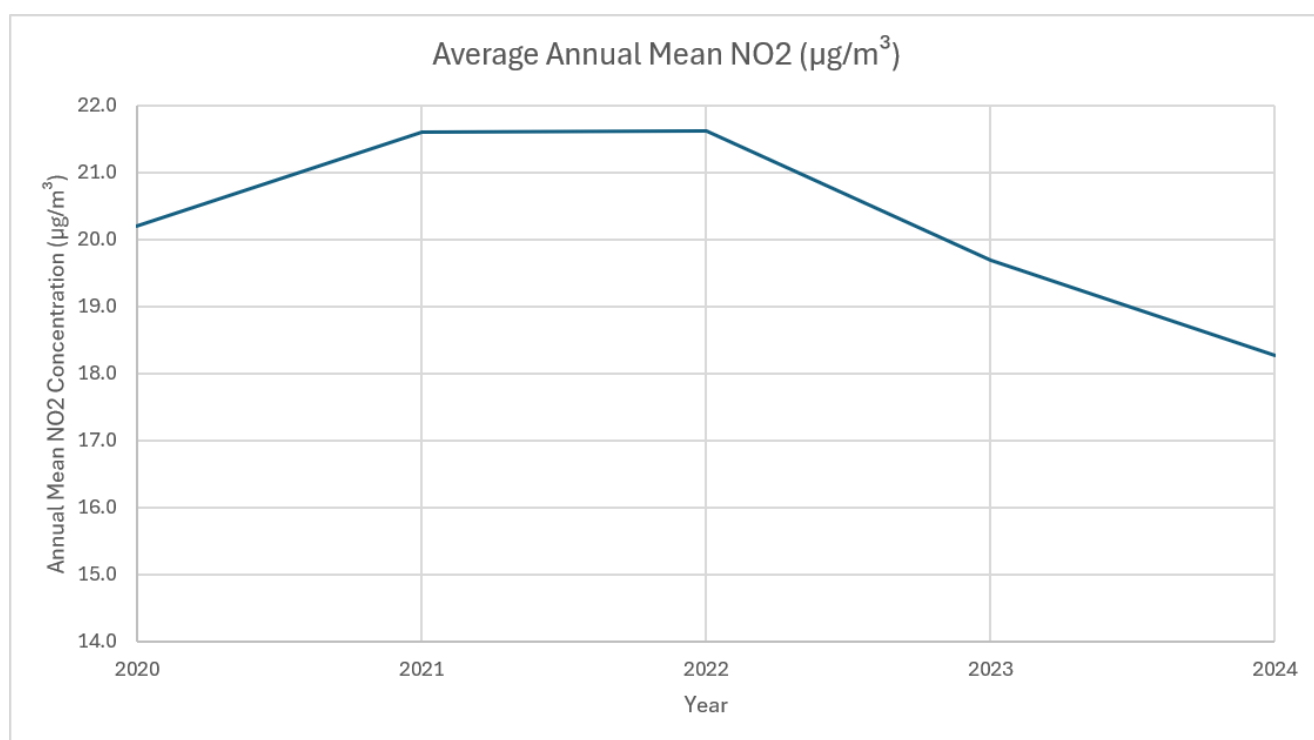


Image 6-1: Average Annual Mean NO₂ Concentrations across Diffusion Tubes with Five Year Data Capture

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Table 6-4: Annual mean PM₁₀ monitoring between 2020 and 2024 (µg/m³)

Site ID	X Coordinate	Y Coordinate	Council	2020	2021	2022	2023	2024
Dover Centre	632302	141465	Dover District Council	22.7	20.8	22.0	21.5	20.3

6.3.4 In addition, the Defra Background Pollutant maps provide predicted background pollutant concentrations at 1km x 1km grid squares across the United Kingdom (UK) (Ref 6.7). The predicted NO₂, PM₁₀ and PM_{2.5} concentrations across the Site are presented in Table 6-5 for the base year 2024.

Table 6-5: Defra Modelled Background Concentrations for 2024 (µg/m³)

Grid Square	NO ₂	PM ₁₀	PM _{2.5}
611500_134500	6.7	9.8	5.4
610500_135500	6.7	9.3	5.3
611500_135500	7.4	10.0	5.4
612500_135500	6.9	9.5	5.5
609500_136500	6.7	10.2	5.4
610500_136500	6.8	10.3	5.4
611500_136500	7.0	9.8	5.4
612500_136500	7.3	10.4	5.5
613500_136500	7.2	10.2	5.5
609500_137500	7.2	12.0	5.6
610500_137500	7.8	13.1	5.9
611500_137500	7.6	12.7	5.8
612500_137500	7.8	11.8	5.7
613500_137500	8.1	12.2	5.7
MIN	6.7	9.3	5.3
MAX	8.1	13.1	5.9
AVERAGE	7.2	10.8	5.5

Updates to Arcadis Monitoring

2022 NO₂ monitoring

- 6.3.5 Arcadis undertook nitrogen dioxide (NO₂) diffusion tube monitoring at 16 locations for a site-specific air quality monitoring survey at the Folkestone to Etchinghill SAC and SSSI between 26/10/2022 and 26/04/2023. The monitoring was undertaken to provide additional local baseline data to inform the assessment and support the verification of the SAC air quality model.
- 6.3.6 As the base year for the air quality model is 2024, the monitoring results were annualised and projected forward to 2024. This enabled the monitored concentrations to be compared with the 2024 modelled concentrations for the purposes of model verification. More details regarding the monitoring results and model verification can be found in ES Addendum Appendix 6.2.

2026 NO₂ monitoring

- 6.3.7 Arcadis undertook NO₂ diffusion tube monitoring at 17 locations within the study area between 28/01/2026 and 23/04/2026. The monitoring was undertaken to provide additional local baseline data to inform the assessment and support the verification of the air quality model.
- 6.3.8 As the base year for the air quality model is 2024, the monitoring results were annualised and projected back to 2024. This enabled the monitored concentrations to be compared with the 2024 modelled concentration for the purposes of model verification. More details regarding the monitoring results and model verification can be found in ES Addendum Appendix 6.2.

Waste Facility Consultation Zone

- 6.3.9 Since submission of the 2022 ES, the MRF at Otterpool Quarry has been constructed and is currently operational. The facility is accepting commercial and industrial waste and has approved planning permission to accept domestic waste within its existing overall throughput limits.
- 6.3.10 The AD plant has not been built and would be subject to an environmental permit which has not been acquired as yet. The 250m consultation zone, which was previously an absolute exclusion zone, is now a proposed consultation zone (as shown on the Parameter Plans (ES Addendum Appendix 4.2)).
- 6.3.11 The majority of the consultation zone will be a country park, as secured in the Parameter Plans (ES Addendum Appendix 4.2). The country park is located to the south of the A20 Ashford Road. Development within the consultation zone is only proposed to the north of Ashford Road, within Parcel RS.1.
- 6.3.12 The extant planning permission at the MRF/AD site (KCC/SH/0095/2015) was informed by an air quality assessment which concluded that odour and dust effects were low risk and would be managed by applying respective dust and odour management plans (Ref 6.20). The most recent odour and air quality assessment work associated with the MRF and AD plant (the 2025 ES Addendum (KCC/FH/0076/2025) stated that the extant planning permission for the site remains unaffected, and that there are no material changes or significant effects associated with design changes made since the MRF/AD plant was consented (Ref 6.21). However, the addendum states that *“future planned development in the area does not appear to be any closer, therefore approved mitigation measures are considered to still apply”* (Ref 6.21).
- 6.3.13 The Air Quality assessment for the AD facility was undertaken in 2009. The assessment of odour from the facility was based on an analysis of the frequency of unfavourable conditions. No dispersion modelling of odour was undertaken at the time. The assessment concluded that with mitigation, impacts on nearby receptors would be negligible, which included the nearby Airport Café approximately 30m away.

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- 6.3.14 Dispersion modelling of emissions from the AD plant was undertaken for NO₂ and PM₁₀. The report highlighted that exceedances of these pollutants were unlikely.
- 6.3.15 Concerns were raised as part of the planning application in relation to impacts from the facility on Air Quality including Bioaerosols. A bioaerosol risk appraisal concluded that with the exception of the Airport Café, residential receptors located near or beyond 250m from the site are not at risk. The committee report highlighted that further assessment would be required using detailed Qualitative Risk Assessment using factors based on site specific, operation activities in order to demonstrate acceptability of the control measures at the permitting stage.
- 6.3.16 The 250m consultation zone is discussed further in sections 6.4 and 6.5 of this chapter.

Domestic Waste Transfer Station

- 6.3.17 The proposed Domestic Waste Transfer Station (DWTS) located to the northeast of the Site was not known at the time of the 2022 ES. However, the air quality assessment associated with the 2024 planning application (KCC/FH/0115/2024) of the DWTS concludes that odour effects at future receptor locations on Otterpool Park were considered to be not significant (Ref 6.22). Traffic emissions were screened out of the assessment. Therefore, it is concluded that the presence of the DWTS as assessed in the 2024 planning application does not require further consideration in relation to air quality, other than acknowledgement of its presence.

Wastewater Treatment Works

- 6.3.18 The 2022 ES assumed that Wastewater Treatment Works (WwTW) would be built on Site. The most recent design and location of the proposed WwTW, as well as any subsequent assessment work undertaken since 2022, was reviewed to ascertain if the conclusions of the 2022 ES are still valid. A planning application for the WwTW (KCC/FH/0020/2025) was submitted in 2025 and determined in April 2026 and included an odour risk assessment which concluded that the risk of operational phase odour effects was very low on existing receptors (Ref 6.23). However, this assessment did not include any commentary on the likely effect on future sensitive receptors built as part of the Proposed Development. Therefore, the odour risk assessment results were reviewed against the illustrative masterplan (ES Addendum Appendix 4.5) to consider potential effects at future sensitive receptors within the Proposed Development.

Updates to Future Baseline

- 6.3.19 The Defra Background Maps predict background pollutant concentrations in the future. The NO₂, PM₁₀ and PM_{2.5} data for the grid squares that cover the Site are presented in Table 6-6 for the future assessment years of 2035 and 2055. The current horizon year of Defra's predicted background concentrations is 2040, therefore the assessment year of 2055 uses the 2040 predicted background concentrations.

Table 6-6: Defra Modelled Background Concentrations for Future Years (µg/m³)

Grid Square	Year	NO ₂	PM ₁₀	PM _{2.5}
611500_134500	2035	5.0	9.1	4.8
610500_135500	2035	4.9	8.6	4.7
611500_135500	2035	5.7	9.3	4.8
612500_135500	2035	5.1	8.8	4.8
609500_136500	2035	4.9	9.5	4.8

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Grid Square	Year	NO ₂	PM ₁₀	PM _{2.5}
610500_136500	2035	4.9	9.6	4.8
611500_136500	2035	5.1	9.1	4.8
612500_136500	2035	5.2	9.7	4.9
613500_136500	2035	5.1	9.5	4.9
609500_137500	2035	5.1	11.3	5.0
610500_137500	2035	5.3	12.4	5.2
611500_137500	2035	5.2	12.0	5.1
612500_137500	2035	5.3	11.2	5.1
613500_137500	2035	5.4	11.5	5.1
MIN	2035	4.9	8.6	4.7
MAX	2035	5.7	12.4	5.2
AVERAGE	2035	5.2	10.1	4.9
611500_134500	2040	4.6	8.9	4.6
610500_135500	2040	4.6	8.5	4.5
611500_135500	2040	5.4	9.1	4.7
612500_135500	2040	4.7	8.6	4.7
609500_136500	2040	4.6	9.3	4.6
610500_136500	2040	4.6	9.4	4.7
611500_136500	2040	4.7	9.0	4.6
612500_136500	2040	4.8	9.6	4.7
613500_136500	2040	4.7	9.3	4.7
609500_137500	2040	4.7	11.2	4.9
610500_137500	2040	4.9	12.2	5.1
611500_137500	2040	4.8	11.9	5.0
612500_137500	2040	4.9	11.0	4.9
613500_137500	2040	5.0	11.3	5.0
MIN	2040	4.6	8.5	4.5
MAX	2040	5.4	12.2	5.1
AVERAGE	2040	4.8	10.0	4.8

Updates to Ecological Sites

- 6.3.20 In the summer of 2023, APIS updated the recommended upper and lower Critical Loads for a number of habitats for the first time since 2011, following the consensus of a United Nations Economic Commission for Europe (UNECE) expert workshop on empirical critical loads of nitrogen (Ref 6.24).
- 6.3.21 Table 6-7 shows the ecological sites within the assessment study area together with their updated critical levels and loads where applicable, and the background concentrations. The following ecological sites have been added to this assessment which were not considered in the 2022 ES due to changes in the Affected Road Network (ARN):
- Heane/Willow Wood Ancient Woodland;
 - Western Height Local Nature Reserve (LNR);
 - Unnamed Ancient Woodland 4 near the M20; and
 - Unnamed Ancient Woodland 5 near the A20.
- 6.3.22 Figure 6.4 in ES Addendum Appendix 6.1 shows the modelled ecological transects.
- 6.3.23 The Otterpool Quarry SSSI lies within the Site, although it is assumed not to be dust or nitrogen sensitive as its citation from Natural England relates to geological features rather than any flora or fauna-based features.

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Table 6-7: Summary of baseline information at ecologically designated receptors

Ecological Site	Habitat Type	Nitrogen Critical Load (kg/N/ha/yr)	NO _x Critical Level (µg/m ³)	NH ₃ Critical Level (µg/m ³)	Background NH3 concentration (µg/m ³) 2022 - 2024	Background Nitrogen Deposition (kg/N/ha/yr) 2022 - 2024
Ashford Green Corridors LNR near the A2070 ¹	Woodland	10.0	30.0	1.0	1.3	21.9
Ashford Green Corridors LNR near the M20 towards the east ¹	Woodland	10.0	30.0	1.0	1.3	21.9
Ashford Green Corridors LNR near the M20 towards the west ¹	Woodland	10.0	30.0	1.0	1.3	21.9
Bartholemews Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.1	20.3
Cowtye Wood Ancient Woodland north of Ashford Road ¹	Woodland	10.0	30.0	1.0	1.1	20.1
Cowtye Wood Ancient Woodland south of Ashford Road ¹	Woodland	10.0	30.0	1.0	1.1	20.1

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Ecological Site	Habitat Type	Nitrogen Critical Load (kg/N/ha/yr)	NO _x Critical Level (µg/m ³)	NH ₃ Critical Level (µg/m ³)	Background NH3 concentration (µg/m ³) 2022 - 2024	Background Nitrogen Deposition (kg/N/ha/yr) 2022 - 2024
Folkestone to Etchinghill SAC and Site of Special Scientific Interest (SSSI)	Woodland	10.0	30.0	1.0	1.0	20.2
Folkestone to Etchinghill SAC and SSSI	Grassland	10.0	30.0	1.0	1.0	12.5
Folkestone Warren SSSI near the M20 towards the west	Grassland	10.0	30.0	3.0	0.9	12.0
Folkestone Warren SSSI near the M20 towards the east	Grassland	10.0	30.0	3.0	0.9	12.0
Folks Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.1	19.8
Grange Alders/Oakbanks Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.1	19.9
Harringe Brooks Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.3	20.7

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Ecological Site	Habitat Type	Nitrogen Critical Load (kg/N/ha/yr)	NO _x Critical Level (µg/m ³)	NH ₃ Critical Level (µg/m ³)	Background NH3 concentration (µg/m ³) 2022 - 2024	Background Nitrogen Deposition (kg/N/ha/yr) 2022 - 2024
Hatch Park SSSI and Bockhanger Wood Ancient Woodland ²	Woodland	10.0	30.0	1.0	1.3	22.0
Heane/Willow Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.1	20.0
Hoads Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.3	21.9
House Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.1	20.2
Killing Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.0	19.9
Kiln Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.1	20.2
Lympne Escarpment SSSI west of Lympne Hill And Lympne Park Wood Ancient Woodland ³	Woodland	10.0	30.0	1.0	1.2	19.3
Lympne Escarpment SSSI east of Lympne Hill	Grassland	10.0	30.0	3.0	1.2	11.5

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Ecological Site	Habitat Type	Nitrogen Critical Load (kg/N/ha/yr)	NO _x Critical Level (µg/m ³)	NH ₃ Critical Level (µg/m ³)	Background NH3 concentration (µg/m ³) 2022 - 2024	Background Nitrogen Deposition (kg/N/ha/yr) 2022 - 2024
Park Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.3	22.0
Perry Wood Ancient Woodland ¹	Woodland	10.0	30.0	1.0	1.1	20.5
Unnamed Ancient Woodland 1 ¹	Woodland	10.0	30.0	1.0	1.3	21.9
Unnamed Ancient Woodland 2 ¹	Woodland	10.0	30.0	1.0	1.3	21.9
Unnamed Ancient Woodland 3 ¹	Woodland	10.0	30.0	1.0	1.3	21.9
Unnamed Ancient Woodland 4 ¹	Woodland	10.0	30.0	1.0	1.2	21.9
Unnamed Ancient Woodland 5 ¹	Woodland	10.0	30.0	1.0	1.0	19.7
Western Heights LNR ¹	Grassland	10.0	30.0	3.0	0.9	12.0

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Ecological Site	Habitat Type	Nitrogen Critical Load (kg/N/ha/yr)	NO _x Critical Level (µg/m ³)	NH ₃ Critical Level (µg/m ³)	Background NH3 concentration (µg/m ³) 2022 - 2024	Background Nitrogen Deposition (kg/N/ha/yr) 2022 - 2024
Notes: 1: Critical loads and levels, and background concentrations extrapolated from nearby SSSI sites modelled in APIS with similar habitats 2: Bockhanger Wood Ancient Woodland is located within Hatch Park SSSI 3: Lypne Park Wood Ancient Woodland is located within Lypne Escarpment SSSI Source: UK Centre for Ecology & Hydrology (n.d.). UK Air Pollution Information System (APIS). Available at: https://www.apis.ac.uk/						

6.4 Updates to Design and Mitigation

Updates to Embedded Design Measures

Construction

- 6.4.1 The mitigation measures presented in the updated IAQM guidance (Ref 6.4) are broadly consistent with those included in the 2014 guidance which was used in the 2022 ES. The principal changes comprise a reduction in the recommended distance for liaison with other high-risk construction sites from 500 m to 250 m. The updated guidance also provides greater clarification regarding basic project controls and the preparation of a site-specific Dust Management Plan (DMP). Therefore, the proposed mitigation measures have not changed since the 2022 ES. The full list of mitigation measures can be found in Appendix 6.3.

Operation

- 6.4.2 The design of the Proposed Development incorporates a number of measures that have served to reduce the operational air quality impact of the Proposed Development. These are mainly measures that serve to reduce the number of vehicle trips generated or that encourage active travel and the use of more sustainable modes of transport which are consistent with the principles of the Transport Strategy (ES Addendum Appendix 16.5). Therefore, the proposed mitigation measures have not changed since the 2022 ES. The full list of mitigation measures can be found in ES Addendum Appendix 16.5.

Early Homes Parcel

- 6.4.3 The embedded mitigation measures identified for the Proposed Development would apply to the EHP where relevant.

Updates to Additional Mitigation

- 6.4.4 An iterative appraisal of the Proposed Development, taking into account the embedded design measures and good practice, was undertaken to identify any potentially significant effects that would require additional mitigation (see Table 6-17). The Proposed Development, during both construction and operation, is not considered to have the potential to cause significant effect due to air quality and therefore no additional mitigation measures have been identified. This has not changed since the 2022 ES.

Early Homes Parcel

- 6.4.5 The need for any additional, parcel-specific measures would be reviewed at the Reserved Matters Application stage when sufficient detail is available regarding the EHP layout.

Waste Facility Consultation Zone

- 6.4.6 It is clear from the planning application for the MRF/AD site (reference KCC/SH/0095/2015) that odour issues relating to operation of the AD facility would be considered as part of the permitting stage. The AD facility is consented but does not currently hold a permit. Therefore, any future permit application would need to be undertaken with consideration of the uses and sensitive receptors around the site.
- 6.4.7 It is not possible at this stage to confirm additional mitigation that may be required if development was to take place within the consultation zone. At Tier 2 for the key phase incorporating Parcel RS.1, further assessment would need to be undertaken to enable the odour impacts and the buffer distance of potential development within the consultation zone to be defined, to demonstrate that the intended use

of the area within the consultation zone would not lead to unacceptable effects on future use. The consultation zone is discussed further in section 6.5.

6.5 Updates to Assessment of Residual and Cumulative Effects

Updates to Residual Effects from Construction

- 6.5.1 Construction vehicle exhaust emissions have been considered as part of the 2035 operational phase local air quality assessment. Construction would be ongoing as the phases of the Proposed Development are built out and occupied.
- 6.5.2 The proposed construction period associated with the build out of the Proposed Development is expected to take place over approximately 28 years (2028 – 2056).
- 6.5.3 Construction phase impacts are anticipated (if unmitigated) from dust emitted by construction activities and vehicle movements. The potential risk of dust impacts on human health, amenity (dust soiling) and ecological receptors has been assessed in accordance with IAQM's construction dust guidance (Ref 6.4) as described in ES Addendum Appendix 6.3.
- 6.5.4 The undertaking of activities such as demolition, excavation, ground works, construction and storage of materials has the potential to result in fugitive dust emissions throughout the construction phase. Vehicle movements both on-site and on the local road network also have the potential to result in the re-suspension of dust from highway surfaces.
- 6.5.5 The potential for impacts at sensitive locations depends significantly on local meteorology during the undertaking of dust generating activities, with the most significant effects likely to occur during dry and windy conditions.
- 6.5.6 In accordance with IAQM guidance (Ref 6.4), the following sections assess the magnitude of potential dust emissions and the sensitivity of area for the likely construction activities (demolition, earthworks, construction and trackout). From this the likely level of risk is then assessed, followed by the recommended mitigation.
- 6.5.7 The desk-study undertaken to inform the baseline identified there are a number of sensitive receptors (e.g. residential properties) within 250 m of the Site. It should be noted that the potential for impacts depends significantly on the distance between the dust generating activity and receptor location. Risk was predicted based on a worst-case scenario of works being undertaken at the Site boundary closest to each sensitive area. Therefore, actual unmitigated risk is likely to be lower than that predicted during the majority of the construction phase.
- 6.5.8 The EHP is included within the construction dust assessment and does not affect the assessment outcome.

Dust Emissions Magnitude

- 6.5.9 **Demolition:** It is currently proposed that at least 59 existing buildings are to be demolished which have a total building volume of approximately 50,000 m³ (ES Addendum Appendix 4.1: Development Specification). As such the potential dust emission magnitude for demolition is considered to be medium.
- 6.5.10 **Earthworks:** The total site area is greater than 110,000 m². As such the potential dust emissions from earthworks is considered to be large.
- 6.5.11 **Construction:** Up to 8,500 homes will be constructed as part of the Proposed Development, along with temporary construction compounds. The total building volume is expected to be greater than 75,000 m³. It is currently unknown whether on site concrete batching will be required. As such the potential dust emission magnitude is considered to be large.

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6.5.12 **Trackout:** The maximum number of outward Heavy Duty Vehicles (HDV) movements per day is expected to be between 20 and 50 (ES Addendum Chapter 16: Transport). The length of the haul road and whether it will be paved or unpaved is currently unknown. As such the magnitude of potential dust emissions from trackout is considered to be medium.

6.5.13 The magnitude of dust emissions for each construction phase is summarised in Table 6-8.

Table 6-8: Construction Phase Dust Emissions Magnitude

Activity	Dust Emission Magnitude
Demolition	Medium
Earthworks	Large
Construction	Large
Trackout	Medium

Sensitivity of Area

6.5.14 Based on the criteria outlined in IAQM guidance (Ref 6.4), the sensitivity of area for dust soiling impacts is expected to be high as there are a large number (>100) of existing receptors within 20 m of the Site.

6.5.15 The sensitivity of area for human health is dependent on the number of existing receptors, the distance of receptors from the Site and the existing background concentrations of PM₁₀.

6.5.16 The highest on-site background concentration for PM₁₀ was obtained from the Defra website (Ref 6.7) and identified as being 12.8 µg/m³ for 2028 (the first year of construction). Therefore, in accordance with the criteria outlined in the IAQM guidance (Ref 6.4), the sensitivity of the area to human health impacts is medium as there are more than 100 receptors (with existing receptors alone) within 20 m of the Site and the background concentration is less than 24 µg/m³.

6.5.17 The sensitivity of the existing area to ecological impacts was deemed to be low as Otterpool Quarry SSSI is not considered sensitive to dust deposition and Harringe Brooks Wood Ancient Woodland is considered to be a low sensitivity receptor.

6.5.18 The sensitivity of the existing environment to the specific construction dust impacts is summarised in Table 6-9.

Table 6-9: Summary of the sensitivity of the area

Potential Impact	Sensitivity of the surrounding area			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	High	High	High	High
Human Health	Medium	Medium	Medium	Medium
Ecological Sites	Low	Low	Low	Low

Risk of Dust Effects (prior to embedded measures)

- 6.5.19 The risk of effects in the absence of environmental measures was then defined based upon the interaction between the magnitude of emissions and the highest level of area sensitivity for each construction activity. The risk of dust effects was determined, as presented in Table 6-10.

Table 6-10: Summary of risk of dust effects

Potential Impact	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Medium	High	High	Medium
Human Health	Medium	Medium	Medium	Medium
Ecological	Low	Low	Low	Low

- 6.5.20 As indicated in Table 6-10, the potential risk for dust soiling is high risk for earthworks and construction, and medium risk for demolition and trackout. The potential risk for health impacts is medium risk for demolition, earthworks, construction and trackout. The potential risk for ecological impacts is low risk for demolition, earthworks, construction and trackout. Accordingly, mitigation measures appropriate to the high-risk category are recommended for earthwork and construction, while medium-risk measures are recommended for demolition and trackout. The general mitigation measures have been conservatively selected based on the basis of a high dust risk.

Measures to avoid Construction Phase Effects

- 6.5.21 The mitigation measures presented in the updated IAQM guidance (Ref 6.4) are broadly consistent with those included in the 2014 guidance which was used in the 2022 ES. The principal changes comprise a reduction in the recommended distance for liaison with other high-risk construction sites from 500 m to 250 m. The updated guidance also provides greater clarification regarding basic project controls and the preparation of a site-specific Dust Management Plan (DMP). In addition, the demolition risk, previously classified as high in the 2022 ES, is now classified as medium, resulting in the soft-stripping mitigation measure changing from highly recommended to desirable. Therefore, the proposed mitigation measures remain largely unchanged since the 2022 ES. The full list of mitigation measures can be found in ES Addendum Appendix 6.3.

Significance of Construction Phase Dust Effects

- 6.5.22 Without mitigation, the construction phase would likely result in a high magnitude of impact on receptors of high sensitivity and would be considered significant. Therefore, those mitigation measures detailed in ES Addendum Appendix 6.3 serve to reduce likely effects to a negligible level. The mitigation measures proposed in the Outline Code of Construction Practice (CoCP) (ES Appendix 4.17), as updated by ES Addendum Appendix 6.3 and to be updated at the Tier 3/EHP Reserved Matters Application stage, are considered as embedded design mitigation and therefore the assessment of effects for the construction phase with these measures implemented is considered **not significant**. This has not changed since the 2022 ES.

Updates to Residual Effects from Operation

- 6.5.23 This section summarises the expected impacts from the increase in road traffic associated with the operation of the Proposed Development in 2035 and 2055.
- 6.5.24 It should be noted that construction vehicle movements have been integrated into the 2035 scenario with Proposed Development traffic outputs that were used to calculate the changes in air pollutant concentrations.
- 6.5.25 All modelled scenarios 2035 and 2055 include committed developments and take into account growth from regional housing and job forecasts. Therefore, the assessed scenarios are inherently cumulative in nature.
- 6.5.26 Concentrations were predicted for NO₂, PM₁₀ and PM_{2.5}. A total of 306 receptor locations across the modelled road network (those detailed in ES Addendum Appendix 6.5 (presented in Figure 6.4 in ES Addendum Appendix 6.1)) were assessed. Of the 306 modelled receptors, 146 were 'future on-site receptors' i.e. in locations which would eventually comprise of residential, mixed-use or school land use within the Site. As these receptors would not exist until the Proposed Development is built out, the IAQM guidance (Ref 6.11) suggests that impacts at such locations are best described in relation to 'whether or not an air quality objective will not be met or is at risk of not being met' when assessing the suitability of air quality for the introduction of new receptors.
- 6.5.27 Human health receptor IDs beginning with OTT denote existing receptors. Their receptor locations were retained, where practicable, from the 2022 ES. However, differences in the modelled road network resulted in the removal of receptors with no nearby modelled roads and the addition of several new existing receptors. To facilitate comparison with the previous results, the original numbering was retained, consequently, the OTT receptor sequence contains gaps. Receptor IDs beginning with FUT represent locations within the Proposed Development. These receptors were selected specifically for this assessment following updates to the flexibility of the movement corridors and are therefore not directly comparable with those assessed previously.
- 6.5.28 The change in pollutant concentration and resultant total concentration will determine whether the Proposed Development impact at a given existing receptor will be negligible, small, moderate or substantially adverse/beneficial.
- 6.5.29 The EHP is included within the operational assessment, in relation to traffic impacts and does not affect the assessment outcome.

Residual Effects from Operation on Local Air Quality (2035)

- 6.5.30 The purpose of the 2035 assessment was to quantify and appraise the impacts associated with the peak construction year in combination with the impacts of the additional vehicles generated by the operation of residences and supporting infrastructure. The year 2035 represents a year where there is the potential to be the largest number of construction vehicles on the road network along with operational phase vehicles.
- 6.5.31 The 2035 without and with Proposed Development impacts are presented in full at each receptor for each pollutant in ES Addendum Appendix 6.5.

Impact on Existing Receptors

- 6.5.32 Table 6-11 summarises the changes in annual mean NO₂ associated with the 2035 operational phase on existing receptors located on the local road network affected in the context of the IAQM impact descriptors (Ref 6.11). Figure 6.5 in ES Addendum Appendix 6.1 also demonstrates the location and IAQM descriptor ascribed to existing receptors.

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Table 6-11: Summary of annual mean NO₂ impacts at existing receptors aggregated by IAQM descriptor (2035)

IAQM Descriptor	Number of receptors	
	Adverse	Beneficial
Substantial	0	0
Moderate	0	0
Slight	0	0
Negligible	160	

- 6.5.33 The change in NO₂ and total NO₂ concentrations at all existing receptors is sufficiently low and is to be considered to have a negligible impact in terms of the IAQM descriptors.
- 6.5.34 The largest change in annual mean NO₂ concentrations is 0.3 µg/m³. The highest annual mean NO₂ concentration in 2035 was predicted with 12.0 µg/m³ which is well below the annual mean NO₂ AQAL. This total concentration demonstrates that the Proposed Development would also not cause any receptors to exceed the 1-hour AQAL for NO₂ in 2035 as it is well below the required indicative metric of 60 µg/m³ as described in the 2022 ES.
- 6.5.35 Annual mean PM₁₀ and PM_{2.5} impacts at existing receptors are negligible as all increases are less than or equal to 0.3 µg/m³ and the total concentrations are low. Annual mean concentrations at all receptors are well below the annual mean AQAL for PM₁₀ and PM_{2.5}. Additionally, there are predicted to be no exceedances of the 24-hour PM₁₀ AQAL as the highest annual mean PM₁₀ concentration at an existing receptor in 2035 is 14.7 µg/m³. The impact of changes at each of the receptors in terms of the 24-hour PM₁₀ AQAL are therefore categorised as negligible.

Future on-Site Receptors

- 6.5.36 The highest on-site with the Proposed Development total NO₂ concentrations was predicted with 6.6 µg/m³ at FUT087. This demonstrates that the rest of the Site is well below the annual mean AQAL for NO₂ and is therefore suitable for habitation in 2035 during the construction peak.
- 6.5.37 The highest on-site PM₁₀ concentration is 12.7 µg/m³ at six of the future receptors which is well below the annual mean AQAL for PM₁₀. Additionally, the highest on-site annual mean PM_{2.5} concentration is 5.5 µg/m³ at four of the future receptors which is well below the AQAL of 20 µg/m³. Therefore, in terms of particulates (both PM₁₀ and PM_{2.5}) the Site is suitable for human habitation and the development of the Site would not lead to any unacceptable exposure to poor air quality.

Conclusion

- 6.5.38 The operation of the partially built Proposed Development in 2035 is not expected to result in any significant adverse impact on local air quality.
- 6.5.39 The sensitivity of all receptors modelled is considered to be high, and the magnitude of change (in terms of risk) is negligible for all existing receptors. The total concentrations across the Site are well below relevant annual mean AQAL, indicating that the occupants of the Proposed Development in 2035 would be subject to an acceptable standard of air quality, the effects are therefore likely to be **not significant**. This has not changed from the 2022 ES.

Residual Effects from Operation on Local Air Quality (2055)

- 6.5.40 The 2055 operational assessment represents a highly conservative appraisal for air quality impacts as discussed in paragraph 6.2.30. The assessment assumes an increase in flows on the local network associated with the full operation of the Proposed Development.
- 6.5.41 The 2055 without and with Proposed Development impacts are presented in full at each receptor for each pollutant in ES Addendum Appendix 6.5.

Impact on Existing Receptors

- 6.5.42 Table 6-12 summarises the changes in annual mean NO₂ associated with the 2055 operational phase on existing receptors located on the local road network affected in the context of the IAQM impact descriptors. Figure 6.5 in ES Addendum Appendix 6.1 also demonstrates the location and IAQM descriptors ascribed to existing receptors.

Table 6-12: Summary of annual mean NO₂ impacts at existing receptors aggregated by IAQM descriptor (2055)

IAQM Descriptor	Number of receptors	
	Adverse	Beneficial
Substantial	0	0
Moderate	0	0
Slight	0	0
Negligible	160	

- 6.5.43 The change in NO₂ and total NO₂ concentrations at all existing receptors is sufficiently low and is to be considered to have a negligible impact in terms of the IAQM descriptors.
- 6.5.44 The largest change in annual mean NO₂ concentrations is 0.4 µg/m³. The highest annual mean NO₂ concentration in 2055 was predicted with 11.0 µg/m³ which is well below the annual mean NO₂ AQAL. This total concentration demonstrates that the Proposed Development would also not cause any receptors to exceed the 1-hour AQAL for NO₂ in 2055 as it is well below the required indicative metric of 60 µg/m³ as described in the 2022 ES.
- 6.5.45 Annual mean PM₁₀ and PM_{2.5} impacts at existing receptors are negligible as all increases are less than or equal to 0.8 µg/m³ and the total concentrations are low. Annual mean concentrations at all receptors are well below the annual mean AQAL for PM₁₀ and PM_{2.5}. Additionally, there are predicted to be no exceedances of the 24-hour PM₁₀ AQAL as the highest annual mean PM₁₀ concentration at an existing receptor in 2055 is 14.8 µg/m³. The impact of changes at each of the receptors in terms of the 24-hour PM₁₀ AQAL are therefore categorised as negligible.

Future on-Site Receptors

- 6.5.46 The highest on-site with the Proposed Development total NO₂ concentrations was predicted with 6.1 µg/m³ at FUT087. This demonstrates that the rest of the Site is well below the annual mean AQAL for NO₂ and is therefore suitable for habitation in 2055.
- 6.5.47 The highest on-site PM₁₀ concentration is 12.7 µg/m³ at six of the future receptors which is well below the annual mean AQAL for PM₁₀. Additionally, the highest on-site annual mean PM_{2.5} concentration is 5.7 µg/m³ at four of the future receptors which is well below the AQAL of 20 µg/m³. Therefore, in terms

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of particulates (both PM₁₀ and PM_{2.5}) the Site is suitable for human habitation and the development of the site would not lead to any unacceptable exposure to poor air quality.

Conclusion

- 6.5.48 The operation of the fully occupied Proposed Development in 2055 is not expected to result in any significant residual effect on local air quality.
- 6.5.49 The sensitivity of all receptors modelled is considered to be high, and the magnitude of change (in terms of risk) is negligible for all existing receptors. The total concentrations across the Site are well below relevant annual mean AQAL, indicating that the occupants of the Proposed Development in 2055 would be subject to an acceptable standard of air quality, the effects are therefore likely to be **not significant**. This has not changed from the 2022 ES.

Residual Effects from Operation on Ecological Receptors

- 6.5.50 For ecological receptors, 2024 background NO_x concentrations were obtained from Defra's 2021-reference-year background maps (Ref 6.7). Background NH₃ concentrations and nitrogen deposition rates were obtained from APIS (Ref 6.19), which reports three-year averages for England; the current maps cover 2022–2024. IAQM guidance (Ref 6.25) indicates that nitrogen deposition rates are not consistently declining and that there is insufficient evidence to assume a future reduction. Although the contribution from road traffic is expected to decrease as cleaner vehicles are adopted and government policies take effect, retaining current nitrogen deposition rates provides a conservative assessment. As APIS does not provide future NH₃ concentrations, the 2022–2024 NH₃ concentrations and nitrogen deposition rates were applied to all assessed scenarios. For consistency, 2024 background NO_x concentrations were also applied to all modelled scenarios. This represents a precautionary approach.
- 6.5.51 As described in ES Addendum Appendix 6.4, annual mean NO_x and NH₃ concentrations, and nitrogen deposition rates were modelled at ecological sites using transects spaced at 10 m intervals except for the Folkestone to Etchinghill SAC and SSSI which was modelled as a grid. The full set of results are shown in ES Addendum Appendix 6.6.

Assessment of NO_x impacts on ecological sites

- 6.5.52 No ecological sites are predicted to exceed the annual mean NO_x critical level of 30 µg/m³ in 2035 or 2055. Therefore, no further assessment is required.

Assessment of NH₃ impacts on ecological sites

- 6.5.53 Table 6-13 details those sites where parts of the modelled transects and grid are expected to experience an increase of greater than 0.01 µg/m³ or 0.03 µg/m³ depending on the appropriate Critical Level of 1 µg/m³ and 3 µg/m³, respectively (i.e. >1% of the critical level) in annual mean NH₃ concentrations. The table list the sites and details which assessment years the site exceeds the 1% criterion.
- 6.5.54 Folkestone Warren SSSI near the M20 towards the west, Lympne Escarpment SSSI east of Lympne Hill and Western Heights LNR are predicted not to exceed their applicable Critical Level of 3 µg/m³ in 2035 or 2055.

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Table 6-13: Summary of sites and years where increase in NH₃ concentrations exceed 1% of the critical level

Site	2035	2055
<i>Ashford Green Corridors Local Nature Reserve (LNR) near the A2070</i>	N	Y
<i>Ashford Green Corridors LNR near the M20 towards the east</i>	Y	Y
<i>Ashford Green Corridors LNR near the M20 towards the west</i>	N	Y
<i>Bartholemews Wood Ancient Woodland</i>	N	Y
<i>Cowtye Wood Ancient Woodland north of Ashford Road</i>	N	Y
<i>Cowtye Wood Ancient Woodland south of Ashford Road</i>	N	Y
<i>Folkestone to Etchinghill SAC and SSSI</i>	Y	Y
<i>Folkestone Warren SSSI near the M20 towards the west</i>	N	Y
<i>Folkestone Warren SSSI near the M20 towards the east</i>	Y	Y
<i>Folks Wood Ancient Woodland</i>	Y	Y
<i>Grange Alders/Oakbanks Ancient Woodland</i>	N	Y
<i>Harringe Brooks Wood Ancient Woodland</i>	N	N
<i>Hatch Park SSSI and Bockhanger Wood Ancient Woodland</i>	Y	Y
<i>Heane/Willow Wood Ancient Woodland</i>	N	N
<i>Hoads Wood Ancient Woodland</i>	N	N
<i>House Wood Ancient Woodland</i>	N	Y
<i>Killing Wood Ancient Woodland</i>	N	N
<i>Kiln Wood Ancient Woodland</i>	N	N

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Site	2035	2055
<i>Lympne Escarpment SSSI west of Lympne Hill And Lympne Park Wood Ancient Woodland</i>	Y	Y
<i>Park Wood Ancient Woodland</i>	Y	N
<i>Perry Wood Ancient Woodland</i>	N	Y
<i>Unnamed Ancient Woodland 1</i>	N	N
<i>Unnamed Ancient Woodland 2</i>	N	N
<i>Unnamed Ancient Woodland 3</i>	N	N
<i>Unnamed Ancient Woodland 4</i>	N	N
<i>Unnamed Ancient Woodland 5</i>	N	N

6.5.55 In any given assessment year, where NH₃ impacts have been found to be less than 1% of the critical level, the impact has been regarded as insignificant and requires no further consideration. Where impacts exceed 1% of the critical level or the appropriate critical level itself and whether this is significant can only be determined from the professional experience of a competent expert in ecology. The significance of the air quality effect in the context of ecological receptors is therefore discussed in ES Addendum Chapter 7: Ecology and Biodiversity.

6.5.56 The increase in NH₃ concentrations in 2055 is likely to be highly pessimistic since the air quality predictions assume no air quality improvements between 2040 and 2055.

Assessment of nitrogen deposition on ecological sites in 2035

6.5.57 A number of sites showed an increase in nitrogen deposition greater than 1% of the relevant lower critical load. All sites exceed the LCL for the habitat, this is typical for sites in the UK where the background N deposition tends to exceed the LCL.

6.5.58 Table 6-14 demonstrates the maximum absolute increase in nitrogen deposition along a site specific modelled transect or grid where a site was predicted to increase by 1% or more of the lower critical load in 2035.

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Table 6-14: Nitrogen deposition at ecological sites in 2035

Site	Maximum increase in nitrogen deposition (kgN/ha/yr)	Increase as a percentage of lower critical load	Comments
Folkestone to Etchinghill SAC and SSSI	0.6	6%	Exceeds in a small area of habitat in close proximity to the A20 corridor, with no widespread exceedance across the wider ecological receptor
Folkestone Warren SSSI near the M20 towards the west	0.2	2%	Exceeds 1% within 20 m of road
Folkestone Warren SSSI near the M20 towards the east	0.4	4%	Exceeds 1% within 20 m of road
Folks Wood Ancient Woodland	1.1	11%	Exceeds 1% within 40 m of road
Hatch Park SSSI and Bockhanger Wood Ancient Woodland	0.3	3%	Exceeds 1% within 40 m of road
Lympne Escarpment SSSI west of Lympne Hill And Lympne Park Wood Ancient Woodland	0.2	2%	Increase at closest point of transect is >1% of lower critical load, remainder of points are <1%
Park Wood Ancient Woodland	0.2	2%	Increase at closest point of transect is >1% of lower critical load, remainder of points are <1%

6.5.59 Details of the location and magnitude of exceedances of the 1% critical load have been considered in ES Addendum Chapter 7: Ecology and Biodiversity in order to determine the impact on the integrity of the habitat at each site. Conclusions on the significance of effect on these ecological sites is provided in ES Addendum Chapter 7: Ecology and Biodiversity.

Assessment of nitrogen deposition on ecological sites in 2055

6.5.60 A number of sites showed an increase in nitrogen deposition greater than 1% of the relevant lower critical load. All sites exceed the LCL for the habitat, this is typical for sites in the UK where the background N deposition tends to exceed the LCL.

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6.5.61 Table 6-15 demonstrates the maximum absolute increase in nitrogen deposition along a site specific modelled transect or grid where a site was predicted to increase by 1% or more of the lower critical load in 2055.

Table 6-15: Nitrogen deposition at ecological sites in 2055

Site	Maximum increase in nitrogen deposition (kgN/ha/yr)	Increase as a percentage of lower critical load	Comments
Ashford Green Corridors Local Nature Reserve (LNR) near the A2070	0.2	2%	Increase at closest point of transect is >1% of lower critical load, remainder of points are <1%
Ashford Green Corridors LNR near the M20 towards the east	0.2	2%	Exceeds 1% within 30 m of road
Ashford Green Corridors LNR near the M20 towards the west	0.2	2%	Increase at closest point of transect is >1% of lower critical load, remainder of points are <1%
Bartholemews Wood Ancient Woodland	0.2	2%	Exceeds 1% within 10 m of road
Cowtye Wood Ancient Woodland north of Ashford Road	0.2	2%	Increase at closest point of transect is >1% of lower critical load, remainder of points are <1%
Folkestone to Etchinghill SAC and SSSI	1.3	13%	Exceeds in areas immediately adjacent to the A20, with more widespread exceedance across receptor points located closest to the road network
Folkestone Warren SSSI near the M20 towards the west	0.4	4%	Exceeds 1% within 40 m of road
Folkestone Warren SSSI near the M20 towards the east	0.8	8%	Exceeds 1% within 40 m of road

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Site	Maximum increase in nitrogen deposition (kgN/ha/yr)	Increase as a percentage of lower critical load	Comments
Folks Wood Ancient Woodland	1.9	19%	Exceeds 1% within 70 m of road
Hatch Park SSSI and Bockhanger Wood Ancient Woodland	0.6	6%	Exceeds 1% within 90 m of road
House Wood Ancient Woodland	0.2	2%	>1% at each point in transect
Lympne Escarpment SSSI west of Lympne Hill And Lympne Park Wood Ancient Woodland	0.5	5%	Exceeds 1% within 20 m of road
Lympne Escarpment SSSI east of Lympne Hill	0.2	2%	Increase at closest point of transect is >1% of lower critical load, remainder of points are <1%
Perry Wood Ancient Woodland	0.2	2%	>1% at each point in transect
Western Heights LNR	0.2	2%	Exceeds 1% within 40 m of road

6.5.62 Details of the location and magnitude of exceedances of the 1% critical load have been considered in ES Addendum Chapter 7: Ecology and Biodiversity in order to determine the impact on the integrity of the habitat at each site. Conclusions on the significance of effect on these ecological sites is provided in ES Addendum Chapter 7: Ecology and Biodiversity.

6.5.63 The increase in nitrogen deposition and the absolute levels presented in 2055 is likely to be highly pessimistic since the air quality predictions assume no air quality improvements between 2040 and 2055 and no reduction in background N deposition from the APIS backgrounds.

Wastewater Treatment Works

6.5.64 Established odour benchmarks have been derived by the Environment Agency (EA) for different types of industrial odour, including WwTW odour, based on their relative offensiveness and the 98th percentile of hourly average odour concentrations modelled over a year (Ref 6.26). The odour benchmarks are:

- 1.5 ou_E/m³ for most offensive odours;
- 3 ou_E/m³ for moderately offensive odours; and
- 6 ou_E/m³ for less offensive odours.

6.5.65 The guidance states that exposure above these benchmark levels indicates the likelihood of unacceptable odour pollution. Odour from WwTW could be considered to be moderately offensive,

except where there is septic effluent or sludge processing, and therefore, should be assessed against the benchmark levels of 3 ouE/m^3 (Ref 6.26). Whilst this guidance is relevant for an Environmental Permit application rather than specifically for planning, it contains useful guidance on good practice for dispersion modelling.

- 6.5.66 The odour risk assessment used two dispersion-model runs: one with the te-cyc tanks, attenuation tank and sludge thickening plant building modelled at their actual heights, and a second with the area sources (the te-cyc tanks and attenuation tank) modelled at ground level (Ref 6.23). The ground-level run represents a worst-case scenario by allowing for building downwash, which was not explicitly included in the model. As the elevated te-cyc and attenuation tanks obstruct airflow, downwash is expected at higher wind speeds, reducing the effective source height.
- 6.5.67 Comparison of the modelled 98th percentile hourly mean odour concentrations with the illustrative masterplan land uses (Appendix 4.5) shows that, when sources are modelled at their actual heights, the proposed bridleway and sports pitch near the WwTW lie mainly within the 0.1 ouE/m^3 contour, with parts of the bridleway being within the 0.2 ouE/m^3 contour. When the area sources are modelled at ground level, the sports pitch lies outside the odour contours, while part of the bridleway lies within the 0.5 ouE/m^3 contour. Modelling sources at their actual heights produces wider dispersion at lower concentrations, whereas ground-level modelling produces higher concentrations over a smaller area. Under IAQM guidance for odour assessments for planning (Ref 6.27), the sports pitch is a medium-sensitivity receptor because users would expect a reasonable level of amenity but would not be present continuously or regularly for extended periods. The bridleway is a low-sensitivity receptor because use is transient and a high level of amenity would not reasonably be expected. The proposed residential properties are high-sensitivity receptors because occupants would expect a high level of amenity and would be present regularly for extended periods. The nearest proposed houses lie outside the modelled odour contours and are therefore outside the area where odour is predicted.
- 6.5.68 The modelled results show that the predicted concentrations would be significantly below the typically applied benchmark of 3 ouE/m^3 . As a result, odour exposure levels at the proposed houses are predicted to fall significantly below 3 ouE/m^3 .

Waste Facility Consultation Zone

- 6.5.69 As mentioned above in section 6.4, based on the information available at this stage, it is not possible to provide an assessment of the impact of the MRF/AD facility on sensitive receptors within the consultation zone or confirm at what distance development could take place within Parcel RS.1 to the north of the A20 Ashford Road. A control and mitigation approach has therefore been applied, given further details on the AD facility are likely to be known before the key phase incorporating Parcel RS.1 comes forward for development.
- 6.5.70 At Tier 2, once there is further certainty on the proposed layout of development within the consultation zone and further detail in relation to the AD plant, further assessment will be required to ensure that any proposed use within the zone is acceptable from an air quality and odour perspective and identify any additional mitigation required.
- 6.5.71 Any future development within the 250m consultation zone would need to demonstrate that sensitive residential receptors would not receive any significant adverse air quality and odour impacts from the MRF and AD facility and that development within the zone would not compromise the continued operation or integrity of the facility. This evidence would be submitted to for approval to FHDC who will in turn, consult with KCC as a statutory consultee, as part of any relevant future planning application. Further assessment is secured via a planning condition.

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- 6.5.72 The further assessment work would need to include the following elements;
- An assessment of the current MRF based on the application information and potentially dust monitoring around the site if required by the LPA;
 - An assessment assuming that the AD facility is operational which would need to consider the detail that was not included in the original planning application that, for example, would satisfy the requirements of a permit application in relation to the key issues such as bioaerosols and odour.
- 6.5.73 The assessment of the area within the consultation zone would therefore rely on more detail on the proposed use and further information on the future potential for the AD process.
- 6.5.74 The committee report of 15th March 2011 for the MRF/AD facility planning application (reference SH/08/124) highlighted that further assessment would be required for the AD facility using detailed Qualitative Risk Assessment, using factors based on site specific, operation activities in order to demonstrate acceptability of the control measures at the permitting stage.
- 6.5.75 To ensure that there would not be any unacceptable odour impacts, the IAQM guidance on the assessment of odour for planning (Ref 6.27) provides benchmark odour criteria for use in odour assessments and recommends that the selection of an appropriate criterion should be determined by the likely offensiveness of the odour source. The guidance identifies a benchmark criterion of 3ouE/m3 (as a 98th percentile of hourly mean concentrations) for odours considered to be moderately offensive. Anaerobic digestion facilities process and store biodegradable organic materials with the potential to generate odour and, on the basis of professional judgement, fall into this category. As such, a benchmark criterion of 3ouE/m3 would be adopted.
- 6.5.76 Future odour assessment in support of the development within the consultation zone should demonstrate that proposed sensitive receptors (including residential properties) are not exposed to predicted odour concentrations in excess of the adopted odour criterion of 3ouE/m3. This would provide confidence that future occupants would not experience significant adverse odour effects and that an acceptable level of amenity can be maintained.
- 6.5.77 If the AD facility has not come forward at Tier 2, and no further detail is available on the design of the facility, a worst-case assessment will need to be undertaken to inform potential development within Parcel RS.1.
- 6.5.78 If development within the consultation zone does not take place, the area of Parcel RS.1 within the consultation zone would remain as green space, with the country park remaining to the south of the A20 Ashford Road. If development is permitted within Parcel RS.1, it would become a mix of open space and residential or mixed use development. Any adverse effects will reduce as a result of distance attenuation between the facility and sensitive receptors. If some development is permitted within the consultation zone, there could be potential to locate sensitive residential elements at a greater distance from the MRF and AD facility compared with the full development of the area.
- 6.5.79 If Parcel RS.1 remains as green space, this would result in less operational traffic on the local road network than assumed in the current assessment. The impact on air quality would therefore reduce compared to the current assessment, given there would be a reduction in traffic emissions from the Proposed Development.

Updates to Cumulative Effects from Construction

- 6.5.80 The maximum risk of unmitigated dust effects is high and therefore the inclusion of other schemes would not change the recommended mitigation measures as the recommended measures represent the most stringent level predicated by the IAQM guidance (Ref 6.4).

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- 6.5.81 One of the recommended mitigation measures for high-risk sites is to ensure that regular liaison meetings are held with other high risk construction sites within 250 m of the Site to ensure plans are coordinated and dust is minimised. The following potential construction sites which have been permitted reside within 250 m of the Site and are listed in Table 6-16 and are shown in ES Addendum Appendix 2.5: Cumulative Assessment Scheme Information.

Table 6-16: Construction sites within 250 m of the Site whereby construction dust could be a cumulative consideration

Map ID	Application	Construction Dust considered?	Conclusion	Propose holding regular liaison meetings with adjacent site if construction period overlaps with construction of Proposed Development?
E1(3)	New Employment Allocations Policy E1 – Hythe – Link Park (Phase 1 and 2) Lympne	No	Planning condition 26 of Decision – Full Plan states that before commencement of development, a CoCP should be submitted to and approved by FHDC. Condition states the CoCP should provide details of the dust suppression methods.	Yes
F&H26	23/1935/FH - Land adjoining Fencing Yard, Potten Farm, Sellindge	Yes	Concludes site is high risk before mitigation measures are applied. Residual effects are not significant .	Yes
F&H28 / K1	FH/24/1363 (KCC/FH/0115/2024) – Waste Transfer Station – Land adjacent to Ashford Road/A20 Westenhanger, Hythe, Kent CT21 4HU	Yes	There is potential for dust impacts during construction but were not categories as assessment predates guidance. The assessment recommends a number of dust suppressing measures and concludes with implementation of these measures, residual effects would be negligible. At the time of writing, KCC is no longer progressing the facility and is instead pursuing a commercial waste-transfer services contract to provide the required waste-transfer capacity for the Folkestone and Hythe area. However, the planning application has not been	Yes

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Map ID	Application	Construction Dust considered?	Conclusion	Propose holding regular liaison meetings with adjacent site if construction period overlaps with construction of Proposed Development?
			withdrawn, so it remains in the cumulative effects assessment.	
F&H40	24/0558/FH/SCR - Stop 24 Services and Port Early Arrivals, Stanford Intersection, Stanford, CT21 4BL	No	Planning condition 26 of Decision – Full Plan states that before commencement of development, a CoCP should be submitted to and approved by FHDC. Condition states the CoCP should provide details of the dust suppression methods.	Yes
F&H41/K2	08/0124/SH KCC/FH/0076/2025 – MRF and AD plant – Otterpool Quarry, Ashford Road, Sellindge	Yes – but undertaken before IAQM guidance on dust was published. ES Addendum concluded no change to the approved dust mitigation measures as listed in the original ES.	There is potential for dust impacts during construction but were not categories as assessment predates guidance. The assessment recommends a number of dust suppressing measures and concludes with implementation of these measures, residual effects would be negligible.	Yes
ND6	Policy ND6	No	Planning condition 26 of Decision – Full Plan states that before commencement of development, a CoCP should be submitted to and approved by FHDC. Condition states the CoCP should provide details of the dust suppression methods.	Yes

- 6.5.82 With the implementation of the embedded dust control mitigation measures, secured through the CoCP (ES Appendix 4.17), as amended by ES Addendum Appendix 6.3, and to be updated at Tier 3/EHP Reserved Matters Application stage, it is considered that cumulative effects of dust will be **not significant**. This is because firstly, dust emissions from the Proposed Development are to be controlled with the most stringent level of measures recommended by the IAQM guidance (Ref 6.4), and residual effects are considered to be **not significant**. Secondly, all of the seven nearby developments have plans in place or are required to produce plans by way of planning condition, which minimises and control dust to negligible/non-significant levels. This is no change from the 2022 ES.

Updates to Cumulative Effects from Operation

- 6.5.83 The air quality assessment of transport impacts is inherently cumulative as all committed developments are included in the traffic model. The air quality assessment therefore provides the predicted cumulative impacts of the Proposed Development in combination with other committed developments in the area.

6.6 Updates to Monitoring

- 6.6.1 As per the 2022 ES, any monitoring requirements have been identified during the construction phase, as set out in section 6.4 above and are included within the Outline CoCP (ES Addendum Appendix 4.17).

6.7 Updates to Assessment Summary

- 6.7.1 Table 6-17 provides an assessment summary with respect to air quality, including potential significant effects with embedded design measures in place, and additional measures required to reach the residual significance of effect. In summary, there are no changes to the assessment outcome in the 2022 ES.

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Table 6-17: Updates to Assessment Summary

Receptor	Embedded Design Measures	Potential Significant Effect (pre-mitigation)	Additional Mitigation	Mitigation Delivery Mechanism	Residual Significance of Effect
Ecologically designated sites	Implementation of the following measures through the CoCP: Site Management (logging of incidents/complaints) Monitoring (site inspections, soiling checks, compliance with Dust Management Plan, etc.) Preparing and maintaining the site (locate dust causing activities away from receptors, barriers, cleaning, enclosed specific operations with high potential for dust production, cover stockpiles, etc.) Operating vehicle/machinery and sustainable travel (comply with NRMM standards, no idling, use mains electricity, travel plan, etc.) Operations (employ dust suppression, use enclosed chutes, minimise drop heights, etc.) Demolition measures (damp down, avoid explosive blasting, soft strip interiors before demolition, etc.) Earthworks measures (re-vegetate promptly, use hessian mulches and cover with topsoil, etc.)	Increased dust deposition from construction activities = not significant No update to the 2022 ES	No additional mitigation required No update to the 2022 ES	N/A No update to the 2022 ES	Negligible (not significant) No update to the 2022 ES
Human receptors	Construction measures (avoid scrabbling, keep aggregates damp, ensure fine powder materials are delivered enclosed and stored in silos, ensure bags are sealed after use) Trackout measures (wash access and local roads, avoid dry sweeping of large areas, ensure vehicle-borne materials are	Increased dust soiling/increased PM₁₀ concentrations from construction	No additional mitigation required No update to the 2022 ES	N/A No update to the 2022 ES	Negligible (not significant) No update to the 2022 ES

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Receptor	Embedded Design Measures	Potential Significant Effect (pre-mitigation)	Additional Mitigation	Mitigation Delivery Mechanism	Residual Significance of Effect
	covered, install hard surface haul roads, wheel washing etc.) No update to the 2022 ES	activities = not significant No update to the 2022 ES			
Ecologically designated sites	Refer to Chapter 7: Ecology and Biodiversity	Increased nitrogen deposition and possible breaching of critical levels and loads from increased traffic flows	Refer to ES Addendum Chapter 7: Ecology and Biodiversity		
Human Receptors	The design of the Proposed Development incorporates a number of measures that have served to reduce the operational air quality impacts of the Proposed Development, these are mainly measures that serve to reduce the number of vehicle trips generated or that encourage active travel and the use of more sustainable modes of transport which are consistent with the principles of the Transport Strategy (Appendix 16.5): - Minimising reliance upon; motor vehicle use - Promoting alternative; transport options;	Increased pollutant concentrations in sufficient quantity and magnitude to constitute a significant effect on local air quality. Creation of new exposure (on-site future receptors) in	No additional mitigation required No update to the 2022 ES	N/A No update to the 2022 ES	Not significant No update to the 2022 ES

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Receptor	Embedded Design Measures	Potential Significant Effect (pre-mitigation)	Additional Mitigation	Mitigation Delivery Mechanism	Residual Significance of Effect
	• Inclusion of integrated cycle paths into surrounding environments; • Inclusion of pedestrian walkways into surrounding environments; • Inclusion of electric charging points; • Implementation of a Travel Plan; • Integration of public transport provisions; • Reduce the need to travel by providing relevant on-site facilities. No update to the 2022 ES	areas of poor air quality. Potentially caused by increased traffic flows associated with the application proposals and Framework Masterplan = not significant No update to the 2022 ES			

Early Homes Parcel

- 6.7.2 The EHP consists of up to 300 homes and is proposed as the first area of development, located in the northeast area of the red line boundary.
- 6.7.3 The embedded and additional design measures outlined in the 2022 ES Chapter 6: Air Quality and above would not change as a result of the EHP provision.
- 6.7.4 The EHP development would not alter the assessment outcome in relation to construction impacts. In relation to operation, the traffic flows as a result of the EHP are included in the traffic data utilised in the air quality assessment.
- 6.7.5 In summary, the provision of the EHP does not result in any additional or different effects on receptors beyond those already assessed in the 2022 ES. All relevant mitigation and management measures will apply to the EHP.

6.8 References

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Ref 6.10	Air Quality Consultants (2025). Calculator for Road Emissions of Ammonia CREAM v2A. Available at: https://www.aqconsultants.co.uk/resources [Accessed September 2026].
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Ref 6.13	Google (2026). Google Maps. Available at: https://www.google.co.uk/maps [Accessed September 2026].
Ref 6.14	The Department for Environment Food and Rural Affairs (Defra) (n.d.) Multi-Agency Geographic Information for the Countryside (MAGIC) Map. Available at: https://magic.defra.gov.uk/ [Accessed September 2026].
Ref 6.15	The Department for Environment Food and Rural Affairs (Defra) (n.d.) UK AIR – Air Information Resource. Available at: https://uk-air.defra.gov.uk/ [Accessed September 2026].
Ref 6.16	Ashford Borough Council (2025). 2025 Air Quality Annual Status Report. Available at: https://www.ashford.gov.uk/media/0wvlqb3l/ashford-borough-council-2025-asr-v50.pdf [Accessed September 2026].
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